

Remarks and Responses

The present amendment is in response to the Office Action mailed June 1, 2005, in which Claims 1-4 were rejected. Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action and, when coupled with the above amendments, are believed to render the claims at issue patentable.

The informalities of the Specification are amended. Applicant respectfully submits that no new matter has been added and that the originally filed specification, drawings, and claims support the amendments.

Claim Rejection - 35 U.S.C. § 102

With respect to paragraphs 3 and 4 of the Office Action, the Office Action rejected claims 1 and 3 under 35 U.S.C. §102(e) as being anticipated by Zhang et al. (US 2004/0222478, hereinafter, Zhang.) Of the rejected claims, only claim 1 is independent.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). **"The identical invention must be shown in as complete detail as is contained in the ... claim."** *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). (MPEP §2131)

In the claim 1, the integrated circuit device comprises a substrate and a plurality of stitching studs, and the stitching studs pass through the substrate.

More particularly, in the preferred embodiment, one end of the stitching plug is electrically connected to the electromagnetic shielding pattern (Page 13, lines 6-8), and the other end of the stitching plug is exposed to serve as the stitching stud, for example, by thinning the substrate (Page 14, lines 1-2). That is, the stitching stud **protrudes from the substrate** rather than **being buried in the substrate**. Therefore, the stitching studs of the present invention can serve as electrode connecting terminals of the integrated circuit device (Page 13, lines 6-8).

The Office Action stated that the metal layer 538 in Zhang has disclosed the stitching studs of the present invention. However, Zhang only illustrated that the metal layer 538 is a single thickness of a metal throughout the specification and drawings, which is totally different from the stitching stud **in shape**. In another aspect, the stitching stud is not disclosed even if the metal layer 538 is further combined with a row of vias 554 which is also disclosed in Zhang. The metal layer 538 and the row 554 are both formed in the typical integrated circuit layers (Paragraph [0052], lines 5-7, Paragraph [0053], lines 1-2, Figs. 5A and 5B). That is, the metal layer 538 and the row 554 **are formed on or buried inside the substrate without exposure to the backside of the substrate**.

Moreover, Zhang also disclosed a bottom plate 508 connected to one end of the row 554, which is formed in the typical integrated circuit layers (Paragraph [0052], lines 5-7). The buried bottom plate 508 directly confirms that the metal layer 538 and the row 554 are blocked from passing through the typical integrated circuit layers so as to be totally disposed inside the typical integrated circuit layers. Therefore, Zhang failed to disclose the stitching studs for serving as electrode connecting terminals whether by the

metal layer 538 or by the combination of the metal layer 538 and the row of vias 554.

The Zhang **lacks any suggestion** that the reference should be modified in a manner required to meet the claim 1 of the present application. Therefore, the novel features of the claim 1 produce new and unexpected results and hence are unobvious and patentable over the reference.

Accordingly, Applicant respectfully requests the 35 U.S.C. §102(e) rejection of claim 1 to be reconsidered and withdrawn.

In addition, insofar as Claim 3 depends from the independent Claim 1, and the claim add further limitations thereto, the 35 U.S.C. §102 (e) rejection of the claim should be withdrawn as well.

Reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejection - 35 U.S.C. § 103

With respect to paragraphs 5-6 of the Office Action, the Office Action rejected claims 2 and 4 under 35 U.S.C. §103(a) as being unpatentable.

When applying 35 U.S.C. §103, the following tenets of patent law must be adhered to:

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837

F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). (MPEP §2143.03 All Claim Limitations Must Be Taught or Suggested)

In paragraph 6 of the Office Action, the Office Action rejected claims 2 and 4 under 35 U.S.C. §103(a) as being unpatentable over Zhang (US 2004/0222478) in view of the Applicants admitted prior art (AAPA, Fig. 1). **Claim 2** depends from the claim 1. As stated above, the stitching studs defined by the claim 1 are patentable over the Zhang. Even the Zhang is combined with the shielding level having connection pads disclosed by AAPA, the proposed combination would not show all of the novel physical features of claim 2. Therefore, the novel features of claim 2 produce new and unexpected results and hence are unobvious and patentable over these references.

Claim 4 depends from the claim 1. As stated above, the stitching studs defined by the claim 1 are patentable over the Zhang. Even the Zhang is combined with the shielding level having a protective layer disclosed by AAPA, the proposed combination would not show all of the novel physical features of claim 4. Therefore, the novel features of claim 4 produce new and unexpected results and hence are unobvious and patentable over these references.

Accordingly, Applicant respectfully submits that claims 2 and 4 are allowable over the art of record and respectfully requests the 35 U.S.C. §103(a) rejection of claims 2 and 4 to be reconsidered and withdrawn.

Conclusions

For all of the above reasons, applicants submit that the specification

and claims are now in proper form, and that the claims define patentably over the prior art of record. Therefore applicants respectfully request issuance for this case at the Office Action's earliest convenience.

Respectfully submitted,

A handwritten signature in black ink, reading "Tseng Shih-hsien". The signature is written in a cursive, flowing style.

Shih-Hsien TSENG

September 15, 2005